

selectively etching at least one silicon element of the surface-plated, sawn-out part of the silicon wafer by bringing at least an area of the at least one silicon element into contact with a gaseous etching medium for etching silicon selectively in a chemical reaction, wherein gaseous reaction products are produced during the step of selectively etching.

17. (Amended) The method of claim 16, wherein the gaseous etching medium includes a fluoride compound of the XFn type.

20. (Amended) The method of claim 16, wherein the gaseous etching medium is diluted with an inert gas to control an etching rate.

21. (Amended) The method of claim 16, wherein at least a part of the gaseous etching medium is one of: convertible from a solid phase to the gaseous phase by thermal sublimation using a solid source; convertible from a liquid phase to the gaseous phase by introducing an inert gas using a bubbler; and convertible from one of the liquid phase and the solid phase to the gaseous phase based on a vapor pressure at a temperature.

29. (Amended) The method of claim 16, further comprising the step of removing, after performing the step of selectively etching in a reaction chamber, at least one of a leftover etching medium and a leftover reaction product from at least one etched silicon element in a vacuum in a load lock, the step of removing being performed at a pressure of less than about 0.1 μbar and at a temperature higher than during the step of selectively etching.

Please add the following new claims:

31. (New) A method for etching, comprising:

exposing a silicon element to a first heat treatment in a vacuum at a first elevated temperature

selectively etching the silicon element with a gaseous etching medium and forming gaseous reactive products, wherein the gaseous etching medium comprises chlorine trifluoride; and

exposing, subsequent to the selective etching, the silicon element to a second heat treatment in a vacuum at a second elevated temperature.

32. (New) The method as recited in Claim 31, wherein at least one of the first and the second heat treatment is implemented with a radiant heating at a pressure of less than 0.1 μ bar.

33. (New) The method as recited in Claim 31, wherein at least one of the first and the second heat treatment is accomplished in a vacuum lock chamber.

34. (New) The method as recited in Claim 33, further comprising:

transferring, subsequent to the first heat treatment, the silicon element from the vacuum lock chamber to a reaction chamber; and

transferring, prior to the second heat treatment, the silicon element from the reaction chamber to the vacuum lock chamber.

35. (New) The method as recited in Claim 31, wherein the silicon element is a surface-plated, sawn-out part of a silicon wafer, and at least one of an eruption, impurity and damage in a crystal lattice of the silicon element is eliminated by the selective etching.

REMARKS

Claims 16-25 and 27-30 are pending in the present application, with Claim 26 having been canceled. Claims 16-25 and 27-30 were rejected and Claim 26 was objected to.

Claims 16-25 and 27-30 have been introduced.